This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An optical module comprising:

a substrate having a planar main surface and a groove in the main surface of the substrate;

an electric connection terminal provided on the substrate;

an optical element completely provided on the planar main surface of the substrate, the optical element being connected with the electric connection terminal,

wherein the optical element is mounted on the planar main surface of the substrate; and

one end of a slender light transmitter fixed in the groove and optically coupled with the optical element,

wherein the light transmitter immediately adjacent to the optical element is fixed in the groove.

2. (Previously presented) The optical module according to claim 1, wherein the substrate includes a first base member and a second base member, the first base member being provided with the electric connection terminal, and the second base member having the planar main surface and being provided with the optical element and the slender light transmitter.

3. (Original) The optical module according to claim 2, wherein the second base member is mounted on the first base member.

4. (Original) The optical module according to claim 1, further comprising a protector formed on the substrate for protecting the optical element and the slender light transmitter.

5. (Currently amended) An optical module comprising:

a substrate having a planar main surface and a groove in the main surface of the substrate;

an electric connection terminal provided on the substrate;

a planer lightwave circuit completely provided on the main surface of the substrate, the planer lightwave circuit being connected with the electric connection terminal,

wherein the planer lightwave circuit is mounted on the planar main surface of the substrate; and

an optical fiber partially provided in the groove and optically coupled with the planer lightwave circuit,

wherein the optical fiber immediately adjacent to the planer lightwave circuit is fixed in the groove.

6. (Original) The optical module according to claim 5, wherein the substrate including a first base member and a second base member, the first base member being provided with the electric connection terminal, and the second base member being provided with the planer lightwave circuit and the optical fiber.

7. (Currently amended) A combination comprising:

a connector connectable with an electric circuit board; and

an optical module including:

a substrate having a planar main surface and a groove in the main surface of the substrate;

an electric connection terminal provided on the substrate, the electric connection terminal electrically connectable with the connector;

an optical element completely provided on the main surface of the substrate, the optical element being connected with the electric connection terminal,

wherein the optical element is mounted on the planar main surface of the substrate; and

one end of a slender light transmitter fixed in the groove and optically coupled with the optical element,

wherein the light transmitter immediately adjacent to the optical element is fixed in the groove.

8. (Original) The combination according to claim 7, wherein the substrate includes a first base member and a second base member, the first base member being provided with the electric connection terminal, and the second base member being provided with the optical element and the slender light transmitter.

9. (Original) The combination according to claim 8, wherein:

the electric connection terminal is provided at a leading end of the first base member; and

the connector is formed with a reception space for receiving the leading end of the first base member, and is provided with an electric connection terminal connectable with the electric connection terminal on the first base member when the leading end of the first base member is placed in the reception space.

10. (Original) A combination according to claim 9, wherein the reception space is opened to the electric circuit board.

11. (Original) A combination according to claim 10, wherein the electric connection terminal provided in the connector has the form of a spring and is exposed to the reception space.

12. (Original) A combination according to claim 8, wherein a main body of the connector is made of a material having a thermal conductivity higher than the first base member.

13. (Original) The combination according to claim 7, wherein:

the electric connection terminal is provided at a leading end of the substrate; and

the connector is formed with a reception space for receiving the leading end of the substrate, and is provided with an electric connection terminal exposed to the reception space and connectable with the electric connection terminal of the substrate when the leading end of the substrate is placed in the reception space.

14. (Original) A combination according to claim 13, wherein the reception space is opened to the electric circuit board.

15. (Original) A combination according to claim 14, wherein the electric connection terminal provided in the connector has the form of a spring and is exposed to the reception space.

16. (Original) A combination according to claim 7, wherein the optical module is further provided with a protector on the substrate for protecting the optical element and the slender light transmitter.

17. (Original) A combination according to claim 7, wherein a main body of the connector is made of a material having a thermal conductivity higher than the substrate.

18. (Previously presented) An optical module comprising:

a package casing provided with an electric terminal on a surface thereof, the package casing having a mount space;

a substrate bearing an optical element, an electrode drawn from the optical element, and one end of a slender light transmitter, the optical element and the one end of the slender light transmitter being fixedly attached on the substrate and optically coupled with each other, the substrate being placed in the mount space of the package casing; and

a bonding member which connects the electric terminal of the package casing and the electrode pad on the substrate.

19. (Previously presented) The optical module according to claim 18, wherein the substrate is formed with a groove, the one end of the slender light transmitter being fixedly attached in the groove.

20. (Previously presented) The optical module according to claim 18, further comprising a protector formed on the substrate for protecting the optical element and the one end of the slender light transmitter.

21. (Previously presented) The optical module according to claim 18, wherein the package casing is made of ceramic.

22. (Previously presented) An optical module comprising:

a package casing provided with an electric terminal on a surface thereof, the package casing having a mount space;

a substrate bearing a planer lightwave circuit and one end of an optical fiber which are fixedly attached on the substrate and optically coupled with each other, the substrate being placed in the mount space of the package casing; and

a bonding member which connects the electric terminal of the package casing and the planer lightwave circuit.

23. (Previously presented) The optical module according to claim 22, wherein the package casing is made of ceramic.

24. (Previously presented) A combination comprising:

a connector connectable with an electric circuit board; and

an optical module including:

a package casing provided with an electric terminal on a surface thereof, the package casing having a mount space;

a substrate bearing an optical element, an electrode drawn from the optical element, and one end of a slender light transmitter, the optical element and the one end of the slender light transmitter being fixedly attached on the substrate, and optically coupled with each other, the substrate being placed in the mount space of the package casing; and

a bonding member which connects the electric terminal of the package casing and the electrode pad on the substrate.

25. (Previously presented) The combination according to claim 24, wherein the connector is formed with a reception space for receiving a leading end of the package casing, and is provided with an electric connection terminal connectable with the electric connection terminal on the package casing when the leading end of the package casing is placed in the reception space.

26. (Previously presented) The combination according to claim 25, wherein the reception space is opened to the electric circuit board.

27. (Previously presented) The combination according to claim 26, wherein the electric connection terminal provided in the connector has the form of a spring and is exposed to the reception space.

28. (Previously presented) The combination according to claim 24, wherein a main body of the connector is made of a material having a thermal conductivity higher than the first base member.

29. (Previously presented) The optical module according to claim 24, wherein the package casing is made of ceramic.